

### REMARKS

Favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

Claims 1-30 are pending in the present application. Claims 1-6 and 17-22 are presently active; and Claims 7-16 and 23-30 are withdrawn from consideration.

In the outstanding Office Action, the specification was objected to; Claims 1-6, 17, and 19 were rejected under 35 U.S.C. 102(e) as anticipated by U.S. Patent No. 6,829,162 B2 to Hosotani; and Claims 18 and 20-22 were indicated as allowable if rewritten to include all limitations of the base claim and any intervening claims.

Regarding the objection to the specification, the specification is amended to replace “wiring layer 28” with “wiring layer.” Applicants note that the wiring layer includes the MTJ element 30 and other components shown in Figure 4C;<sup>1</sup> and was inadvertently labeled with reference character “28” in view of the “wiring 28” shown in Figures 1 and 2.<sup>2</sup> Accordingly, as the specification is corrected, Applicants respectfully request that the objection to the specification be withdrawn.

Turning now to the rejection of Claims 1-6, 17, and 19 under 35 U.S.C. 102(e) as anticipated by Hosotani, that rejection is respectfully traversed.

Independent Claim 1 recites “a taper angle of a side surface of the magneto-resistive element including the insulating barrier layer, relative to a bottom surface of the magneto-resistive element, is about 60° or less.” Claims 2-6 depend from Claim 1.

The outstanding Office Action cites Hosotani at Figures 18 and 20, column 13, lines 7-21, and column 14, lines 7-32, as teaching the claimed taper angle. However, Hosotani’s magnetically fixed layer 31 (cited as teaching the claimed magneto-resistive element) is illustrated as having orthogonal surfaces, i.e., all surfaces are illustrated as being parallel or

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<sup>1</sup> Specification, page 16, lines 3-8.

<sup>2</sup> Specification, page 18, lines 8-16.

orthogonal to one another.<sup>3</sup> Consequently, the side surface of the magnetically fixed layer 31, relative to a bottom surface of the magnetically fixed layer 31, appears to be 90°; and, certainly, is not disclosed as being 60° or less. Thus, Hosotani does not teach the above-noted feature of Claim 1.

Independent Claim 17 recites that “the magneto-resistive element has an inclined side surface which is cleaned by ion beam etching after the magneto-resistive element is formed by ion beam etching.”

The outstanding Office Action cites Hosotani at Figures 6, 16, and 17, column 6, lines 36-50, column 11, lines 60-67, and column 12, lines 1-46, as teaching the features of Claim 17. Hosotani’s magnetically fixed layer 31 (cited as teaching the claimed magneto-resistive element) does not have a cleaned side surface, nonetheless an inclined side surface which is cleaned by ion beam etching. Thus, Hosotani does not teach the above-noted feature of Claim 17.

Independent Claim 19 recites that “an insulation film, which is provided to cover an entirety of the magneto-resistive element..., is formed of a material that is more easily oxidizable than the lower electrode.”

The outstanding Office Action cites Hosotani at Figures 7, 16, and 17, column 6, lines 51-67, column 7, lines 1-5, column 11, lines 60-67, and column 12, lines 1-46, as teaching the features of Claim 19. Hosotani’s hard mask 20 (cited as teaching the claimed insulation film) is not arranged on the magnetically fixed layer 31 (cited as teaching the claimed magneto-resistive element); does not cover an entirety of the magnetically fixed layer 31; and is not formed of a material that is more easily oxidizable than the lower electrode 55 (cited as teaching the claimed lower electrode). Thus, Hosotani does not teach the above-noted feature of Claim 19.

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<sup>3</sup> Hosotani, Figures 3, 14, 16, 21, 22, 23, 24 and 25.

Accordingly, for the above-stated reasons, Applicants respectfully request that the rejection of Claims 1-6, 17, and 19 under 35 U.S.C. § 102(e) as anticipated by Hosotani be withdrawn.

Consequently, in light of the above discussion, the present application is believed to be in condition for allowance; and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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